



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Docket No. FAA-2021-1174; Project Identifier MCAI-2021-00246-R

RIN 2120-AA64

Airworthiness Directives; Leonardo S.p.a. Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to supersede Airworthiness Directive (AD) 2020-23-07, which applies to certain Leonardo S.p.a. Model AB139 and AW139 helicopters. AD 2020-23-07 requires removing certain life raft reservoirs (reservoirs) from service, inspecting the reservoirs and actuator cables, and depending on the inspection results, replacing the reservoir or adjusting the actuator cable. Since the FAA issued AD 2020-23-07, additional serial-numbered reservoirs were identified as also being affected by the unsafe condition. This proposed AD would retain certain requirements of AD 2020-23-07, expand the required actions to include additional serial-numbered reservoirs, and update applicable service information. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Leonardo S.p.A. Helicopters, Emanuele Bufano, Head of Airworthiness, Viale G.Agusta 520, 21017 C.Costa di Samarate (Va) Italy; telephone +39-0331-225074; fax +39-0331-229046; or at <https://customerportal.leonardocompany.com/en-US/>. You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-1174; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the European Union Aviation Safety Agency (EASA) AD, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Darren Gassetto, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7323; email Darren.Gassetto@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2021-1174; Project Identifier MCAI-2021-00246-R” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Darren Gassetto, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7323; email Darren.Gassetto@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued AD 2020-23-07, Amendment 39-21323 (85 FR 73610, November 19, 2020) (AD 2020-23-07), for Leonardo S.p.a. Model AB139 and AW139 helicopters with emergency flotation kit part number (P/N) 4G9560F00111 (15 passengers) or 4G9560F00211 (18 passengers) installed. AD 2020-23-07 requires for helicopters with certain serial-numbered right-hand (RH) or left-hand (LH) reservoirs installed, within 25 hours time-in-service (TIS) removing each affected reservoir from service. For helicopters with certain serial-numbered RH or LH reservoirs installed, AD 2020-23-07 requires, within 25 TIS or before the reservoir accumulates 55 hours TIS since first installation on a helicopter, whichever occurs later, inspecting the valve pull

rod of each reservoir and depending on the inspection results, replacing the reservoir before further flight. For helicopters with certain other serial-numbered RH or LH reservoirs installed, AD 2020-23-07 requires within 25 hours TIS, inspecting the actuator cable of each reservoir and depending on the inspection results, adjusting the actuator cable before further flight. Finally, AD 2020-23-07 prohibits installing certain serial-numbered reservoirs with certain part numbers on any helicopter and prohibits installing certain other serial-numbered reservoirs with certain part numbers on any helicopter unless the actuator cable of the reservoir has been inspected, and if required, the actuator cable adjusted.

AD 2020-23-07 was prompted by EASA AD 2020-0185, dated August 19, 2020 (EASA AD 2020-0185), issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for Leonardo S.p.A. Helicopters, formerly Finmeccanica S.p.A, AgustaWestland S.p.A., Agusta S.p.A.; and AgustaWestland Philadelphia Corporation, formerly Agusta Aerospace Corporation, Model AB139 and AW139 helicopters, all serial numbers, if equipped with emergency flotation kit P/N 4G9560F00111 (15 passengers) or P/N 4G9560F00211 (18 passengers).

EASA advised of an inadvertent emergency life raft activation and deployment event that occurred on a Model AW139 helicopter during flight. EASA advised that following the deployment, the life raft separated from the helicopter and was lost at sea. EASA stated that investigation is on-going into the cause of this event and that Model AB139 helicopters are subject to the same unsafe condition due to design similarity to the AW139 helicopters. This condition, if not addressed, could result in further unintended activation and deployment of the life raft in flight and separation with possible impact on the rotors, resulting in reduced control of the helicopter.

Accordingly, EASA AD 2020-0185 required for some helicopters, replacement of affected reservoirs and, for other helicopters, inspections of the valve pull rod and the actuator cable of the life raft and, depending on findings, accomplishment of the applicable corrective actions. EASA AD 2020-0185 also prohibited re-installation of an affected reservoir on any helicopter.

Actions Since AD 2020-23-07 Was Issued

Since the FAA issued AD 2020-23-07, EASA issued AD 2021-0054, dated February 25, 2021 (EASA AD 2021-0054), which supersedes EASA AD 2020-0185. EASA advises that additional serial-numbered reservoirs are affected by the same unsafe condition. EASA also advises Leonardo Helicopters issued Alert Service Bulletin (ASB) No. 139-662, dated February 15, 2021 (ASB 139-662), which includes a Table listing the serial numbers of the additional batch of affected reservoirs and provides additional replacement and inspection instructions. Furthermore, EASA advises some of the affected reservoirs could become serviceable after an inspection and after these reservoirs are re-identified and marked with an “R.” Accordingly, EASA AD 2021-0054 retains the requirements of EASA AD 2020-0185, expands the batch of affected reservoirs to include the additional affected reservoirs, and includes the updated service information.

After AD 2020-23-07 was issued, the FAA determined the total number of affected helicopters stated in the Cost of Compliance paragraph in AD 2020-23-07 was estimated as the total number of U.S. registered Leonardo S.p.a. Model AB139 and AW139 helicopters. However, the FAA revised the Cost of Compliance paragraph in this proposed AD to the total number of helicopters that the type certificate holder estimated as having an affected emergency flotation kit installed. The FAA has also updated the cost information for the parts cost estimates.

FAA’s Determination

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA is proposing this AD after evaluating all known relevant information and determining that the unsafe condition described previously is likely to exist or develop on other products of the same type designs.

Related Service Information Under 1 CFR Part 51

The FAA reviewed Leonardo Helicopters ASB No. 139-648, dated August 10, 2020 (referred to as “ASB 139-648 First Issue”) and ASB No. 139-648, Revision A, dated February 15, 2021 (ASB 139-648 Rev A). ASB 139-648 First Issue specifies procedures to replace certain reservoirs and return them to the supplier, inspect the valve

pull rod by measuring the actuator cable between the face of the pull rod and the back of the valve cap, inspect the actuator cable by verifying the presence of a clearance between the sphere at the end of the actuator cable and the activation system, and adjust the actuator cable. ASB 139-648 Rev A specifies the same procedures as ASB 139-648 First Issue, except ASB 139-648 Rev A includes a Note clarifying that LH and RH reservoirs with S/Ns marked (or recorded on the component Log Card) with the suffix “R” after the S/N are not affected by Part I of ASB 139-648 Rev A, even if they have an S/N listed in Table 1 of ASB 139-648 Rev A.

The FAA also reviewed ASB 139-662, which specifies additional serial-numbered reservoirs that are affected by the same unsafe condition. ASB 139-662 also provides additional actuator cable inspection procedures for these affected reservoirs.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Proposed AD Requirements in this NPRM

This proposed AD would retain all of the requirements of AD 2020-23-07 and would expand the required actions to include the additional serial-numbered reservoirs identified in ASB 139-662. This proposed AD would also allow alternative service information to be used for specific portions of certain inspections and corrective action. This proposed AD would add an exemption from certain required actions for reservoirs marked with an “R” after the S/N.

Differences Between this Proposed AD and EASA AD 2021-0054

EASA AD 2021-0054 uses flight hours (FH) for certain compliance times, whereas this proposed AD would use hours TIS. EASA AD 2021-0054 specifies the compliance time for certain serial-numbered reservoirs to be replaced is within 25 FH after August 26, 2020 (the effective date of EASA AD 2020-0185), whereas this proposed AD would require certain serial-numbered reservoirs to be removed from service within 25 hours TIS after December 4, 2020 (the effective date of AD 2020-23-07). EASA AD 2021-0054 specifies the compliance time for certain serial-numbered reservoirs to be replaced is within 25 FH after March 4, 2021 (the effective date of EASA

AD 2021-0054), whereas this proposed AD would require certain serial-numbered reservoirs to be removed from service within 25 hours TIS after the effective date of this AD.

EASA AD 2021-0054 specifies the compliance time to inspect the valve pull rod for certain helicopters is after replacement of the affected reservoir and within 5 FH after the serviceable reservoir exceeds 50 FH since installation, whereas this proposed AD would require the valve pull rod inspection for certain helicopters within 25 hours TIS or before the reservoir accumulates 55 total hours TIS since first installation on a helicopter, whichever occurs later after December 4, 2020 (the effective date of AD 2020-23-07).

EASA AD 2021-0054 specifies the compliance time to inspect the actuator cable for certain helicopters is before next flight after the replacement of the affected reservoir and for certain other helicopters within 25 FH after August 26, 2020 (the effective date of EASA AD 2020-0185), whereas this proposed AD would require the actuator cable inspection for certain helicopters within 25 hours TIS after December 4, 2020 (the effective date of AD 2020-23-07).

EASA AD 2021-0054 requires returning removed reservoirs to the supplier, whereas this proposed AD would require removing certain reservoirs from service and replacing other reservoirs instead.

Costs of Compliance

The FAA estimates that this AD affects 15 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates that operators may incur the following costs in order to comply with this AD.

Replacing a reservoir would take about 1 work-hour and parts would cost up to \$3,710 for an estimated cost of up to \$3,795 per reservoir.

Inspecting the valve pull rod of a reservoir would take about 1 work-hour for an estimated cost of \$85 per reservoir and up to \$ 2,550 for the U.S. fleet.

Inspecting an actuator cable would take about 0.25 work-hours for an estimated cost of \$21 per inspection and up to \$630 for the U.S. fleet.

If required, adjusting an actuator cable would take about 0.75 work-hour for an estimated cost of \$64 per cable.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by:

a. Removing Airworthiness Directive 2020-23-07, Amendment 39-21323 (85 FR 73610, November 19, 2020); and

b. Adding the following new airworthiness directive:

Leonardo S.p.a.: Docket No. FAA-2021-1174; Project Identifier MCAI-2021-00246-R.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2020-23-07, Amendment 39-21323 (85 FR 73610, November 19, 2020) (AD 2020-23-07).

(c) Applicability

This AD applies to Leonardo S.p.a. Model AB139 and AW139 helicopters, certificated in any category, with emergency flotation kit part number (P/N) 4G9560F00111 (15 passengers) or 4G9560F00211 (18 passengers) installed.

(d) Subject

Joint Aircraft Service Component (JASC) Code: 2560, Emergency Equipment, and 2564, Life Raft.

(e) Unsafe Condition

This AD was prompted by the inadvertent activation and deployment of an emergency life raft while the helicopter was in flight. The FAA is issuing this AD to prevent the unintended deployment of a life raft (raft). The unsafe condition, if not addressed, could result in the deployment of a raft during flight, separation of the raft with possible impact on the rotors, and subsequent reduced control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) For helicopters with a right-hand (RH) or left-hand (LH) life raft reservoir (reservoir) P/N 3G2560V01951 or P/N 3G2560V01251 and with a serial number (S/N) listed in Table 1 of Leonardo Helicopters Alert Service Bulletin (ASB) No. 139-648, dated August 10, 2020 (referred to as “ASB 139-648 First Issue”), within 25 hours time-in-service (TIS) after December 4, 2020 (the effective date of AD 2020-23-07), remove each affected reservoir from service. Any reservoir with the letter “R” after the S/N is excluded from this requirement.

(2) For helicopters with a RH or LH reservoir P/N 3G2560V01951 or P/N 3G2560V01251 and with an S/N listed in Table 1 of Leonardo Helicopters ASB No. 139-662, dated February 15, 2021 (ASB 139-662) within 25 hours TIS after the effective date of this AD, remove each affected reservoir from service. Any reservoir with the letter “R” after the S/N is excluded from this requirement.

(3) For helicopters with a RH or LH reservoir P/N 3G2560V01951 or P/N 3G2560V01251 and with an S/N not listed in Table 1 of ASB 139-648 First Issue or

Table 1 of ASB 139-662 installed, within 25 hours TIS or before the reservoir accumulates 55 total hours TIS since first installation on a helicopter, whichever occurs later after December 4, 2020 (the effective date of AD 2020-23-07), inspect the valve pull rod of each reservoir by following the Accomplishment Instructions, Part II, paragraphs 3. through 5.1, of ASB 139-648 First Issue. Any reservoir with the letter “R” after the S/N is included in this requirement. If the measurement of the actuator cable between the face of the pull rod and the back of the valve cap exceeds 68.5 mm, before further flight, replace the reservoir. As an alternative to using the specified portions of ASB 139-648 First Issue, you may accomplish the valve pull rod inspection by following the Accomplishment Instructions, Part II, paragraphs 3. through 5.1, of Leonardo Helicopters ASB No. 139-648, Revision A, dated February 15, 2021 (ASB 139-648 Rev A).

Note 1 to paragraph (g)(3): An actuator cable, which is referenced in paragraphs (g)(3) and (4) of this AD, is also known as an actuation cable.

(4) For helicopters with a RH or LH reservoir P/N 3G2560V01951 or P/N 3G2560V01251 and with an S/N not listed in Table 1 of ASB 139-648 First Issue or Table 1 of ASB 139-662 installed, within 25 hours TIS after December 4, 2020 (the effective date of AD 2020-23-07), inspect the actuator cable of each reservoir by following the Accomplishment Instructions, Part III, paragraphs 3. through 5.1, of ASB 139-648 First Issue. Any reservoir with the letter “R” after the S/N is included in this requirement. If the clearance between the sphere at the end of the actuator cable and the activation system exceeds 5.0 +0.00/-2.0 mm, before further flight, adjust the actuator cable by following Annex A of ASB 139-648 First Issue. As an alternative to using the specified portions of ASB 139-648 First Issue, you may accomplish the actuator cable inspection and corrective action by following:

(i) The Accomplishment Instructions, Part III, paragraphs 3. through 5.1, and Annex A, as applicable, of ASB 139-648 Rev A, or

(ii) The Accomplishment Instructions, paragraphs 4 through 4.3.1, and Annex A, as applicable, of ASB 139-662.

(5) As of the effective date of this AD, do not install reservoir P/N 3G2560V01951 or P/N 3G2560V01251 with an S/N listed in Table 1 of ASB 139-648

First Issue, Table 1 of ASB 139-648 Rev A, or Table 1 of ASB 139-662 on any helicopter. Any reservoir with the letter “R” after the S/N is excluded from this requirement.

(6) As of the effective date of this AD, do not install a reservoir P/N 3G2560V01951 or P/N 3G2560V01251 with an S/N other than an S/N listed in Table 1 of ASB 139-648 First Issue, Table 1 of ASB 139-648 Rev A, or Table 1 of ASB 139-662, on any helicopter unless you have complied with the requirements in paragraphs (g)(3) and (4) of this AD, as applicable to your helicopter.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (j)(1) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(i) Related Information

(1) For more information about this AD, contact Darren Gassetto, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7323; email Darren.Gassetto@faa.gov.

(2) For service information identified in this AD, contact Leonardo S.p.A. Helicopters, Emanuele Bufano, Head of Airworthiness, Viale G.Agusta 520, 21017 C.Costa di Samarate (Va) Italy; telephone +39-0331-225074; fax +39-0331-229046; or at <https://customerportal.leonardocompany.com/en-US/>. You may view this referenced service information at the FAA, Office of the Regional Counsel, Southwest Region,

10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(3) The subject of this AD is addressed in European Union Aviation Safety Agency (EASA) AD 2021-0054, dated February 25, 2021. You may view the EASA AD on the Internet at <https://www.regulations.gov> in Docket No. FAA-2021-1174.

Issued on January 3, 2022.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2022-00057 Filed: 1/11/2022 8:45 am; Publication Date: 1/12/2022]